

Abstract

An optical network comprises nodes coupled via optical fibers and forming one or more loops each comprising a plurality of the nodes. Amplified spontaneous emission (ASE) loops in the network are avoided by providing, for each loop, optical seam filters, which may include add/drop multiplexer functions, for different spectral bands of an optical spectrum of the network in different ones of the nodes of the loop. Each optical seam filter optically interrupts the loop for optical wavelengths within the respective spectral band, so that each loop is optically interrupted for all spectral bands of the optical spectrum.

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